

## Currency Exchange Rates

1.5



*Dean displays oysters ready for sale at Rodney's Oyster Depot. After a shipment of oysters is received, the oysters are graded and sold to domestic and international customers.*

### MATH ON THE JOB

Dean MacEachern grew up in Cornwall, Prince Edward Island, and attended Bluefield High School in Hampshire. Dean is now the plant manager for Rodney's Oyster Depot. "My main duties are shipping and receiving of oysters. I also do the sales to and invoicing of clients," he says. Dean is also responsible for ensuring that the quality of the oysters he sells meets or exceeds the standards set by the Canada Food Inspection Agency (CFIA).

Oyster distributors from different countries purchase oysters, by the piece, from Dean. He must ask for and compare price quotes in the currency of the country the oysters will go to. When selling oysters to an American distributor, Dean uses information on the exchange rate, gathered over a 60-day cycle, to estimate a competitive price he can sell the oysters for. The exchange rate changes every day during this cycle. What strategies can Dean use to estimate a competitive price?

People travel to different countries on business and for pleasure. Goods and services are also bought and sold between countries. Since different countries use different systems of **currency**, international trade requires an organized system for exchanging money.

Currency: the system of money a country uses

Example: dollar, euro, yen, rupee

Currency is exchanged by banks, currency exchange companies, and businesses such as travel agencies. Not all currencies are available at every exchange. If the currency you need is not requested very often, you may have to order it in advance. It may take some time to obtain a currency, so it is best to plan ahead. Since banks and other exchange agents charge a fee for this service, it can be a good idea to shop around for the best price.

If a Canadian company wants to buy goods made in Japan, it must exchange Canadian dollars for yen to complete the purchase. The **exchange rate** between the two currencies is used to calculate how many dollars the company must convert to yen.

Exchange rate: the price of one country's currency in terms of another nation's currency.

Example: \$1 Canadian = \$0.98300 American

**\*\*These values change daily and are based on the global economy.\*\***

The exchange rate fluctuates from day to day, and from one currency exchange to another. Exchanges set a **selling rate** and a **buying rate** for currency exchange, and these rates are different from each other. If you plan to travel to Italy and need to obtain euros from your bank, you will pay the selling rate (the bank is selling the euros to you). If you have euros left over when you return to Canada, you will receive the buying rate when you convert them back into Canadian dollars (the bank is buying them from you). You pay more for the foreign currency than the banking institution will pay you in return.

When travelling in a foreign country, it is often helpful to estimate what something costs in your own currency. Estimating can help you compare prices.

### Thursday, February 16<sup>th</sup>

- Reminder: Extra help Tuesday's and Thursday's at lunch hour
- Next Test/Quiz: Setting the Price/Sale Price/Currency Quiz TODAY
- Next Assignment Due: TODAY

#### Today:

- Write Quiz
- Finish Currency Notes
- Finish Currency Section
- Notes/Examples/Practice questions
- Classwork/Homework

## Tuesday, February 21<sup>st</sup>

- Reminder: Extra help Tuesday's and Thursday's at lunch hour
- Next Test/Quiz: Chapter 1 Mid-Unit Test Friday, February 24th
- Next Assignment Due: none this week

### Today:

- Review Currency Notes
- Notes/Examples/Practice questions
- Classwork/Homework
- (maybe finish movie!)

Buying rate: the rate at which a currency exchange buys money from customers

Selling rate: the rate at which a currency exchange sells money to its customers

These 2 rates are usually not the same. This is a result of the exchange business making profit by providing a service to allow you access to different currencies.

Credit cards also charge more than the posted rates. So if you buy something from the U.S. on line for example you pay a 2% more than the posted exchange rate. It is often better to use cash rather than your visa card when visiting the U.S.

## Mental Math and Estimation

If the exchange rate for the euro is \$1.644814 CAD and your hotel in Paris costs €95.00, about how much is your hotel in Canadian dollars?

\_\_\_\_\_ = \_\_\_\_\_

If a question says the exchange for a certain currency is ..... it means that is what the currency is worth compared to 1 CAD.

Ex. What would it cost to buy 2000 krona if the exchange is 0.175558

**FIGURE 1.2**  
Exchange Rates Compared to the Canadian Dollar

\* Rates as of October 24, 2008

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These values are expressed in CAD. (Pg. 45)

For example:

0.159300 Egypt pound 0.217300

The bank buying rate for 1 pound in Egypt is equal to 0.159300 CAD

*Example: You buy 400 pounds, how many Canadian dollars would it cost you?*

$$\cancel{400} \times \frac{x \text{ CAD}}{400 \text{ pounds}} = \frac{0.217300 \text{ CAD}}{1 \text{ pound}} \times 400$$

$$x = \$86.92 \text{ CAD}$$

*Example #2: What if you didn't spend any of the 400 pounds, how much would you get if the bank bought it back?*

$$\cancel{400} \times \frac{x}{400 \text{ pounds}} = \frac{0.159300 \text{ CAD}}{1 \text{ pound}} \times 400$$

$$x = \$63.72 \text{ CAD}$$

### Example 1

On a specific date, the selling rate for the Danish krone compared to the Canadian dollar is 0.221778. How many kroner will you receive for \$500.00 CAD?

The unit of Danish currency is the krone, which is the Danish word for crown. The plural of krone is kroner.

$$\cancel{500} \times \frac{x \text{ kroner}}{500 \text{ CAD}} = \frac{1 \text{ krone}}{0.221778 \text{ CAD}} \times 500$$

$$x = 2254.507 \text{ Kroner}$$

### Example 2

### Example 2

On the same day as example 1 occurs, the buying rate for kroner was 0.210778. If, after purchasing your kroner, you decided not to go to Denmark and sold the kroner back to the bank, how much would you lose?

$x = 2254.50 \text{ Kroner}$   

$$\frac{2254.50 \text{ Kroner}}{2254.50 \text{ Kroner}} = \frac{0.210778 \text{ CAD}}{1 \text{ Kroner}}$$

$$x = \$475.20 \text{ CAD}$$

$$\frac{3.5}{22}$$

~~2254.50 Kronen~~

$$x = \$475.20 \text{ CAD}$$

$$= \frac{0.210778 \text{ CAD}}{1 \text{ Krono}}$$

\$24.80

Wednesday, February 22<sup>nd</sup>

- Reminder: Extra help Tuesday's and Thursday's at lunch hour
- Next Test/Quiz: Chapter 1 Mid-Unit Test Friday, February 24th
- Next Assignment Due: none this week

Today:

- Check and go over homework
- Review for Chapter 1 Test
- Finish movie

Use the table on p. 45 to answer the following questions.

1. What would the cost be, in Canadian dollars, to buy the following currencies from a bank?

- a) euro 1.644814 CAD  
b) Hong Kong dollar 0.133451 CAD  
c) Pakistan rupee 0.019360 CAD

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2. If you had the following foreign currencies, what rate would you use when a bank is buying the currency from you?

- a) Japanese yen 0.009295 CAD  
b) Australian dollar 0.950964 CAD  
c) United States dollar 1.004350 CAD



3. Calculate the amount of money you would receive in Canadian dollars if you sold the following currencies to a bank.

a) 4500.00 pesos

$$4500 \times \frac{x}{4500 \text{ pesos}} = \frac{0.083443 \text{ CAD}}{1 \text{ peso}} \times 4500 \quad x = 375.49 \text{ CAD}$$

b) 25 000.00 Hong Kong dollars

$$25000 \times \frac{x}{25000 \text{ dollars}} = \frac{0.128451 \text{ CAD}}{1 \text{ dollars}} \times 25000 \quad x = 3211.28 \text{ CAD}$$

c) 2200.00 euros

$$2200 \times \frac{x}{2200 \text{ euros}} = \frac{1.580814 \text{ CAD}}{1 \text{ euro}} \times 2200 \quad x = 3477.79 \text{ CAD}$$

d) 8545.00 Scottish pounds

$$8545 \times \frac{x}{8545 \text{ pounds}} = \frac{1.996146 \text{ CAD}}{1 \text{ pound}} \times 8545 \quad x = 17057.07 \text{ CAD}$$

4. Megan is attending a three-day trade fair in Germany. Her travel allowance is \$1200.00 CAD. How much money will she have in the local currency for her expenses in Germany?

$$1200 \times \frac{x}{1200 \text{ CAD}} = \frac{1 \text{ euro}}{1.644814 \text{ CAD}} \times 1200$$

$$x = 729.57 \text{ euros}$$

5. Opal is planning a trip to Europe. She wishes to buy \$650.00 Canadian dollars worth of each of the following currencies. How much of each currency will she have?

a) euro 
$$\frac{650 \times}{650 \text{ CAD}} = \frac{1 \text{ euro}}{1.644814 \text{ CAD}} \times 650 \quad x = 395.18 \text{ euros}$$

b) Swiss francs 
$$\frac{650 \times}{650 \text{ CAD}} = \frac{1 \text{ franc}}{1.017007 \text{ CAD}} \times 650 \quad x = 639.13 \text{ francs}$$

c) Swedish kronor 
$$\frac{650 \times}{650 \text{ CAD}} = \frac{1 \text{ Krone}}{0.175558 \text{ CAD}} \times 650 \quad x = 3702.48 \text{ Kronor}$$

- d) If Opal cancels her trip to Sweden and changes the kronor back into Canadian dollars, how much will she receive? Why does she receive a lower amount back in Canadian dollars than she initially paid?

$$\frac{3702.48 \times}{3702.48 \text{ Kronor}} = \frac{0.165558 \text{ CAD}}{1 \text{ Krone}} \times 3702.48$$

$x = 612.98 \text{ CAD}$

$$\begin{array}{r} 650 \\ - 612.98 \\ \hline \$ 37.02 \end{array}$$